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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,501	10/11/2001	John W. Cuzzo	015511-000002	9736

7590

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EXAMINER

SCHAETZLE, KENNEDY

ART UNIT	PAPER NUMBER
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3762

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/975,501

Applicant(s)

CUOZZO, JOHN W.

Examiner

Kennedy Schaetzle

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-15 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 16-18 and 20 is/are rejected.
- 7) ☒ Claim(s) 4 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 8, 9, 16-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Issalene et al. (Pat. No. 5,447,489).

Issalene et al. disclose an apparatus comprising an energy source that imparts energy to a tooth (note col. 1, lines 58-68, col. 4, lines 46-59 and Fig. 4), and an attachment portion to secure the energy source in a mouth in proximity to the tooth (see Figs. 2, 3 and 4). While the apparatus's intended use of intra-oral stimulation of the trigeminal nerve was considered, it was not deemed sufficient to saliently distinguish over the apparatus of Issalene et al.. The apparatus of Issalene et al. is considered capable of stimulating the trigeminal nerve. The applicant, in fact, states that a mechanical vibrator may be used to stimulate the trigeminal nerve (note page 12, first full paragraph).

Regarding claim 2, Issalene et al. show the use of a transducer (note col. 3, lines 26-29 and also Fig. 9), and an oscillator coupled to the transducer to provide an electrical signal to the transducer (see element 104 of Fig. 8).

Regarding claim 3, note wire coil 111 of Fig. 9.

Concerning claim 5, elements 21 and 22 constitute first and second legs with an energy source attached to the first leg (see Figs. 3 and 4) and with a bridge portion 25 spanning the width of the tooth to link the first leg and the second leg.

Regarding claim 8, note col. 2, lines 38-42.

With reference to claim 9, note col. 1, lines 58-64.

Regarding claims 16-18 and 20, note the comments made above as they apply to related limitations.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as obvious over Issalene et al. in view of Paugh et al. (Pat. No. 3,838,515).

Issalene et al. do not explicitly refer to a bridge portion including at least one wire. Issalene et al. instead refer to the use of a bar 25 to prevent strong mechanical stresses from being exerted on the vibrating element. The examiner considers a bar of the dimensions shown by Issalene et al. to be a special case of wire with a square-shaped cross-section. Paugh et al. disclose that wire with a square-shaped cross-section has been known in the dental appliance arts and that such wire has minimal resiliency and cannot be easily deformed (col. 1, lines 50-58). Anyone of ordinary skill in the dental appliance arts desiring a rigid bar such as taught by Issalene et al. would have therefore seen the obviousness of incorporating a bridge including at least one wire.

Regarding the limitation "...to secure the apparatus about a crown of the tooth...", the examiner considers such statements absent means-plus-function format (§112 6<sup>th</sup> paragraph) to be merely functional in nature and representative of intended use.

Likewise regarding claim 7, since the applicant is not claiming the method of disposing the device about a tooth, but merely the apparatus itself, statements pertaining to the location of the device with respect to body structure will be insufficient to saliently distinguish over the apparatus of Issalene et al..

***Allowable Subject Matter***

5. Claims 4 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Concerning claims 4 and 19, there is no teaching in the prior art of record for modifying the acoustic device of Issalene et al. to include the recited timer. It would appear that the audio content would dictate whether or not the electrical signal was to be discontinued to the transducer, and therefore one would not require a timer.

6. Claims 10-15 are allowed.

The prior art of record does not appear to disclose a method of stimulating the trigeminal nerve comprising the steps of removably securing an energy source in proximity to a tooth and imparting energy to the enamel of the tooth to stimulate the trigeminal nerve.

***Conclusion***

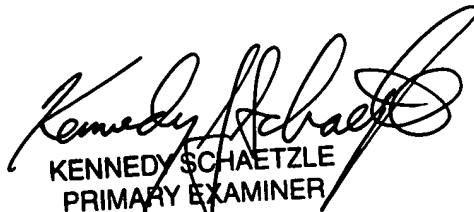
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chiarenza et al. disclose a dental implant that is permanently imbedded in the jawbone, and that includes a timer for automatically discontinuing the provision of electrical signals to the electrode following a selected interval of provision of the electrical signal.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kennedy Schaeztle whose telephone number is 703 308-2211. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 703 308-5181. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0858.

KJS  
December 7, 2003

  
KENNEDY SCHAEZTLE  
PRIMARY EXAMINER